Title (en)

MULTILAYER BACKING ABSORBER FOR ULTRASONIC TRANSDUCER

Title (de)

MEHRSCHICHTTRÄGERABSORBER FÜR ULTRASCHALLWANDLER

Title (fr)

ABSORBEUR MULTICOUCHE DE RENFORT POUR TRANSDUCTEUR À ULTRASONS

Publication

EP 2230904 A4 20140521 (EN)

Application

EP 08856738 A 20081208

Priority

- US 2008085914 W 20081208
- US 558407 P 20071206

Abstract (en)

[origin: WO2009073884A1] A multilayer backing absorber for ultrasonic transducers operative in thickness mode has acoustic impedance and absorption for a given sensitivity and bandwidth. The multilayer backing absorber provides for transducer performance with a smooth frequency response curve. A transducer has a backing layer comprising layers of metal, polymer, and/or adhesive arranged so that a given impedance and absorption are obtained. Side boundaries between gross multiple layer regions with metal and without metal make some angles to the surfaces so that reflection from the back surface of the absorber does not reflect back to the piezoelectric layer. A multilayer absorber comprises a metal layer on each polymer layer and is configured as a periodic grating wherein the direction and period is different for each layer, and wherein the acoustic wave in the absorber is scattered or diffracted.

IPC 8 full level

A01N 3/00 (2006.01); **B06B 1/06** (2006.01); **G10K 11/00** (2006.01)

CPC (source: EP US)

B06B 1/06 (2013.01 - EP US); **G10K 11/002** (2013.01 - EP US); Y10T 156/10 (2015.01 - EP US); Y10T 428/24132 (2015.01 - EP US); Y10T 428/3154 (2015.04 - EP US)

Citation (search report)

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- [XAY] US 2003085635 A1 20030508 - DAVIDSEN RICHARD [US]
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